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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,436	09/05/2003	Dennis Ray Wilson	18326/03901	8479

7590 08/23/2005  
Patricia A. Meier  
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EXAMINER
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STEPHENSON, DANIEL P

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/656,436

Applicant(s)

WILSON, DENNIS RAY

Examiner

Daniel P. Stephenson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 10-17, 27 and 28 is/are allowed.
- 6) ☐ Claim(s) 9, 18, 21-23 and 25 is/are rejected.
- 7) ☒ Claim(s) 19, 20, 24 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/22/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 18, 22, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Cooper. Cooper (Figure 1) discloses a method in which:

- a single open wellbore to an underground coal bearing formation is provided
- an oxidizing gas (air) is injected through the wellbore and into the underground coal formation
- the coal in the underground coal formation is ignited
- a predetermined amount of a cooling media (water) is injected to force the burning of the coal away from said wellbore.

The fluid injected is not enough to offset the BTU's produced by the burning coal, since it is stated that the water being injected does not extinguish the burning of the coal (col. 2 lines 49-51).

3. Claims 9, 18, 22, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham. Graham (Figures 1 and 2, col. 2 line 47-col. 3 line 27) discloses a method in which:

- a single open wellbore to an underground coal bearing formation is provided (a production well may be provided)
- an oxidizing gas (air) is injected through the wellbore and into the underground coal formation
- the coal in the underground coal formation is ignited

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- a predetermined amount of a cooling media (steam/water) is injected to force the burning of the coal away from said wellbore.

The fluid injected is not enough to offset the BTU's produced by the burning coal, since it is stated that the steam being injected does not extinguish the burning of the coal but merely lowers the temperature downhole. Using temperature as a guide to the ratio of the BTU's produced it is shown that at the lower end the temperature is ~1600°F and at the upper end the temperature is ~2600°F. This represents a ratio that is ~60% less. Thus inherently the BTU's being produced by the combination is ~60% less after the steam/water injection.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Pasini, III et al. '447. Graham shows all the limitations of the claimed invention, except it does not disclose that the oxidizing gas injected into the formation is air enriched with oxygen. Pasini, II et al. '447 discloses a process similar to the process of Graham in which the coal is ignited in situ and fed with and oxidizing gas. The oxidizing gas is disclosed as air, air enriched with oxygen, or oxygen (col. 3 lines 65-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the oxidizing gas of Pasini, III et al. with the method of Graham. This would be done to provide a better fuel to the downhole combustion since it is oxygen that is consumed by the fire.

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*Allowable Subject Matter*

6. Claims 1-8, 10-17 and 27-28 are allowed.
7. Claims 19, 20, 24 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

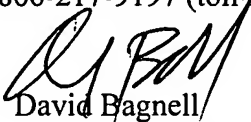
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Terry, Strickland, Jr., Cook '537 and Parker et al. '597 all show similar elements to the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P. Stephenson whose telephone number is (571) 272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David Bagnell/  
Supervisory Patent Examiner  
Art Unit 3672

DPS 